

VELUX®

A BUILDING AS A ROCK

Mountain Hut on Dachstein Glacier, Austria





ABOVE THE CLOUDS

The Dachstein glacier, a 2700m high mountain in the Austrian region of Styria, offers one of the most spectacular broad views over the Alps. 250m below the top of this steep, rocky massive, in the eternal snow, a tiny make-shift hut was offering a shelter for the climbers. It was called Seethalerhütte after its former host, running the place for half a century. The shed was made of military barracks, and located on a little plateau that turned out to be geologically unsuitable in the times of climate change.

In the year 2016, a competition was held for its replacement. Dreiplus Architekten ZT GmbH won it with a modest, yet powerful concept of a building blending seamlessly into the surrounding rocks. The architects, Stephan Hoinkes and Thomas Heil, wanted to keep the character of a mountain shelter, as in opposition to panorama-restaurants designed for the needs of mass tourism.

The building changes its colour in the same way as the rocky landscape, in which it stands: golden in the morning, becomes light grey in the midday sun, shines at sunset to fade into a deep blue and black after dusk.

The construction started in summer 2017 with casting of underground concrete floors. In spring 2018 a wooden structure was put on top of the concrete foundation. From there the building grew from one week to another. The old hut, located slightly below the construction site was in operation until the opening of the new one on Christmas 2018.



"The hut looks like a rock, but it was not designed to look like it. The form is a result of the function. The sloped facades allow snow to slide down, and give the photovoltaic panels in the south a better orientation. Precisely speaking, the building has no facades but is a one big roof. With roof windows, a standard product we did not alter in any way. Only addition was a valve for adjusting gas pressure in the glazing, because of the altitude."

all quotes Stephan Hoinkes, architect Dreiplus Architekten







ALPINE FUNCTIONALITY MEETS ALPINE MAGIC

"We made everything as big as it was necessary and as small as it could be. I feel somewhat lost designing houses that are meant to be large for the sake of it."

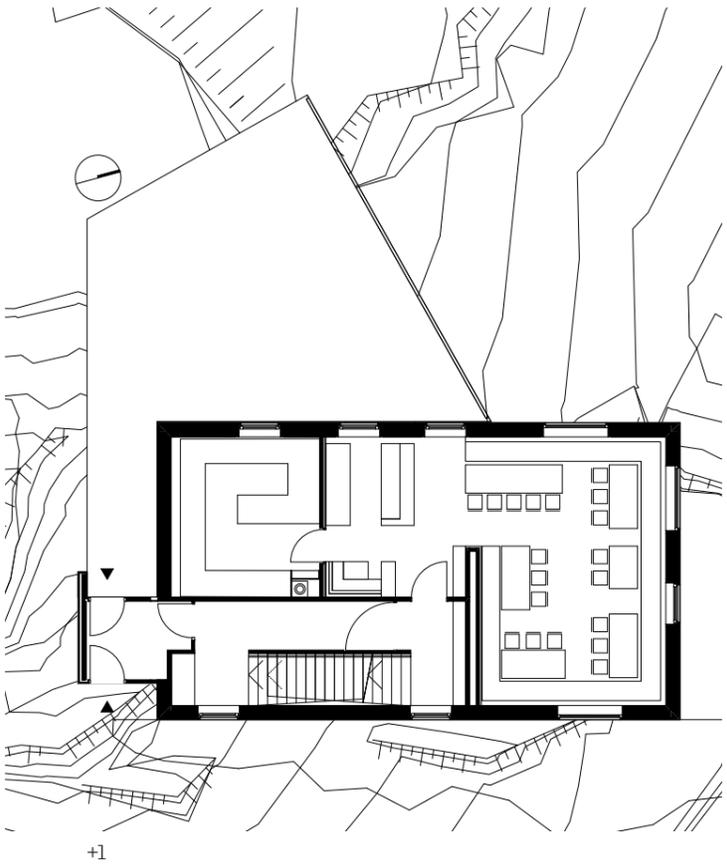
The lower, small underground floor is not visible from the outside and contains technical facilities - a tank for the sewer. The floor above is cantilevered to keep the footprint small. Next to the toilets, a tiny shower and wardrobe, there are technical facilities and storage, accessible from the outside during the summer months. The main entrance is on the ground floor, as well as the kitchen and dining area. Two upper floors, accessible only in the afternoon, are bedrooms and private flat of the innkeepers.

Every little detail is thought through for maximal functionality and all the comfort needed in alpine conditions. Special attention was given to the team of three, consisting of the innkeepers' couple and a young man from Tibet, coming every summer to help. Perfecting of the workflow led to innovative use of a standard product: the reach-through bar counter towards the restaurant terrace is also a larger roof window, providing when open at the same time a glazed roof over the counter and allowing the service outside directly from indoors.

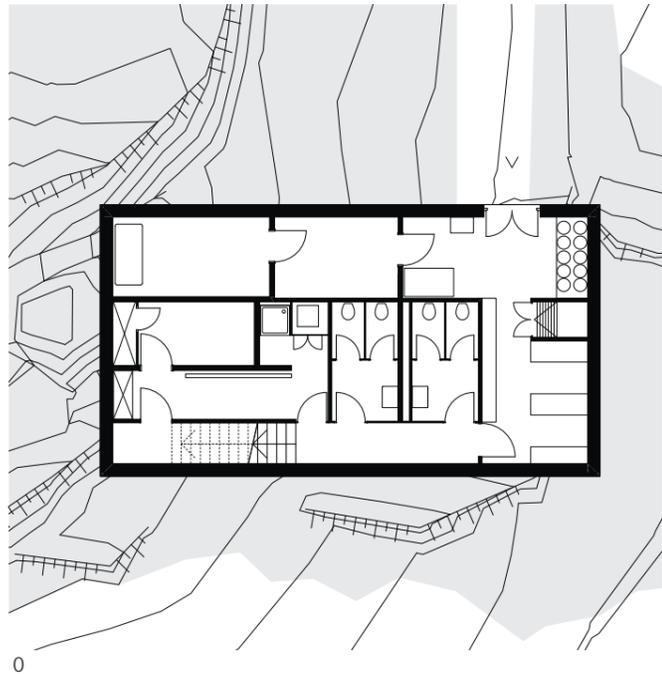
The ground floor houses the kitchen and a large dining area with three large windows that carpenter has built to match the VELUX products installed next to them. They look like three distinct paintings - of a stone wall, the plateau in the north and the neighbouring peak.

The understanding of windows as paintings led to a very conscious placement of the openings. The first and second-floor bedrooms, each with one painting-like window, are efficiently equipped with bunk beds. Attic houses one large room with a full-length row of mattresses on the floor.

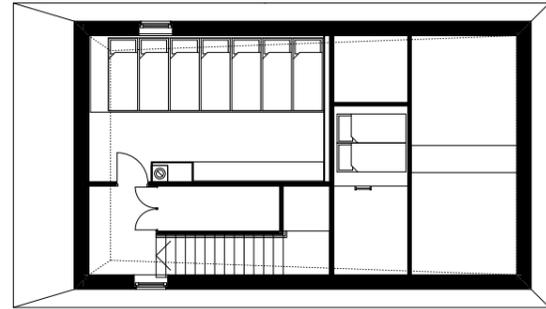
"The windows are carefully placed to act not only as light source, but also paintings. Each one in its frame - window frame - tells a story of the landscape: in the bedrooms these are fragments of the rocky wall of Dachstein, the stair, leading down, opens towards the valley beneath, preparing for the journey back to the everyday life."



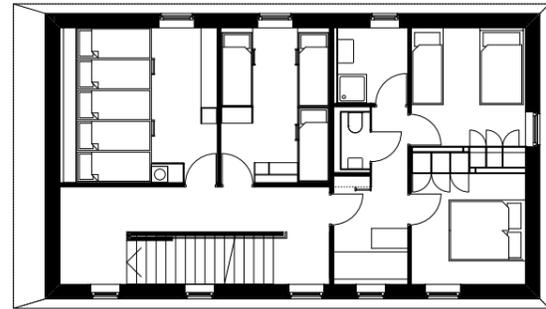
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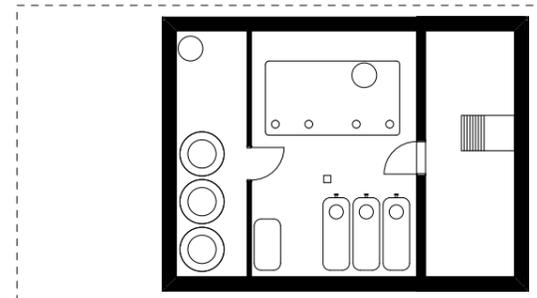
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+3



+2



-1

Floorplans of the building. The lower entrance level, 0, is partially underground. In the summer months the snowmobile can drive directly to the entrance to deliver food and pick up waste. In the winter months this area is covered by snow. The level -1 with tank is accessible only by ladder from the inside. The guests enter the house on +1, the entrance level: in the summer from the west, in the winter from the east. The sleeping floors are accessible from 4pm and are a sock-only area: heavy mountain boots are not allowed on the pristine wood.









TECHNOLOGY MIMICKS NATURE

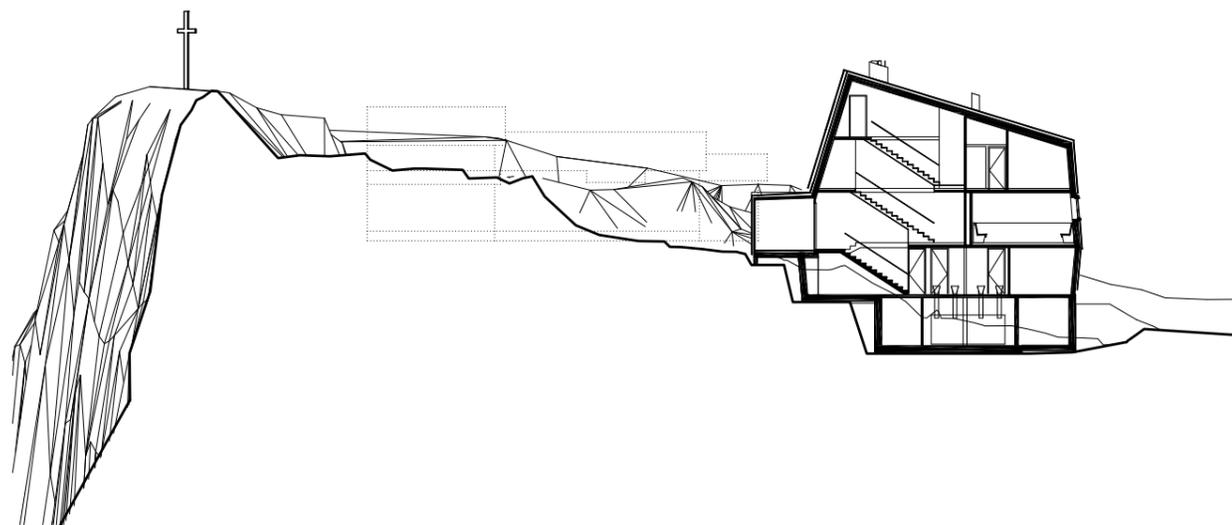
The architects did extensive research on the similar projects already constructed and as a result, decided to keep things as simple as possible: standard window formats, handles, and most rational construction details. The windows are mounted in the facade according to the usual VELUX detailing, slightly protruding in front of the surface. The result of a technical decision creates a great shadow play in the sun.

The facade, as well as the external part of the window frames, are made out of raw zinc. There is no varnish that would prevent ageing, as the aim was to achieve a monolithic look.

"The construction has to be very efficient in the alpine conditions, so we made a test-run in the valley. We constructed a real-scale facade mock-up with recycled windows to investigate the detailing. The workers were sceptical at first because of extra effort, but later, on 2700 meters were happy to be doing details they have learned previously. And we were happy because we could test different colours of aluminium cladding."

The structure of the building is simple and effective, and consists of prefabricated wooden boards mounted on wooden skeleton, wood fibre insulation and aforementioned aluminium cladding. The materials inside reflect the construction - raw wood bedrooms are cosy and smell well, the light boards on the floors encourage to walk barefoot.

Long before sunrise, in one of the dark Dachstein massive rocks tiny lights start to shine, the guests climb out of their bunk beds, and after a hearty breakfast, take off to conquer the peaks.



Cross section of the house and the surroundings. The old, demolished hut is shown with dotted line. The southern facade is all covered with solar panels. The lowest level with technical facilities is accessible only via the upper floor, although it's partially above the ground.





PROJECT DATA

Project: Mountain Hut
Location: Dachstein Glacier, Austria
Design: Stephan Hoinkes and Thomas Heil, Dreiplus Architekten ZT GmbH
Time: 2017 - 2018
Photos: Kasia Jackowska





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